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STAFF STUDY

FOR SUBCOMMITTEE NO. 3

F. EDWARD HEBERT, CHAIRMAN

COMMITTEE ON ARMED SERVICES

HOUSE OF REPRESENTATIVES

ON H. R. 3516, FALLOUT SHELTER PROGRAM

88th CONGRESS, 1st SESSION

--- By Philip W. Kelleher, Counsel

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Mr. Chairman:

Your Subcommittee has for consideration H. R. 3516, a bill "To further amend the Federal Civil Defense Act of 1950, as amended, to provide for shelter in Federal structures, to authorize payment toward the construction or modification of approved public shelter space, and for other purposes."

In accordance with your direction I have prepared a staff study on the general subject of fallout shelters and other matters related thereto. May I at the outset suggest that this bill, H. R. 3516, could have such far reaching effects that it would be helpful to the Subcommittee to deliberate upon not only fallout shelters themselves but a number of other matters which in one way or another relate to the subject.

This study is designed to present and suggest discussion on many basic considerations relating to the shelter program -- considerations which, I feel, could broadly and deeply affect our country, perhaps our allies, and, quite certainly, every Member of the Armed Services Committee and of the Congress.

To place the matter in its broadest perspective, I suggest that the question which the Congress will ultimately be called upon to answer is whether the prosecution of the currently planned fallout shelter program, or any extension or expansion of it would work a cruel and dangerous

deception on the American people, or would it, on the other hand, constitute the salvation of this country both for itself and as the leader of the free world.

The considerations underlying this question range from the point of mere technical feasibility of a fallout shelter program to whether, granting its technical feasibility, its collateral effects would be such as to render its prosecution unwise.

The distance between these two points is a long one. I shall try to travel that distance as quickly as possible.

THE BILL

The bill, H.R. 3516, is before each Member of the Committee. It can be seen that the bill is a relatively brief one and extremely broad in its language.

THE LAW

As we all know, the original enabling legislation for Civil Defense was the Federal Civil Defense Act of 1950 approved by the President on January 12, 1951, over 13 years ago. Since then Civil Defense has not had a happy history. Until the issuance of Executive Order 10952 by the President on July 20, 1961, it had gotten nowhere. No one thing can be blamed for this picture other than perhaps the lack of interest on the part of the American people. It had lacked funds, leadership, and any true sense of direction.

On July 20, 1961, President Kennedy issued Executive Order 10952. The White House press release accompanying the Executive Order quoted the President as follows:

> "More than ever, a strong Civil Defense program is vital to the nation's security. Today, Civil Defense is of direct concern to every citizen and at every level of Government."

In his letter of August 2, 1962, to the Chairmen of the Armed Services and Appropriations Committees of the House and Senate, concerning the need for early affirmative action on the Administration's civil defense recommendations, the President stated:

> "The Secretary of Defense and my other senior advisors on this subject had intensively reviewed what is known and what is not known about the possible effects of nuclear warfare. The conclusion was clear that, for the foreseeable future, under a wide range of attack assumptions, large numbers of lives could be saved by adequate fallout shelter space."

Secretary McNamara, in his posture briefing to the Committee, maintains that the President's civil defense program is an essential element in the total defense effort and is a complement to any future anti-ballistic missile system.

Pursuant to Reorganization Plan No. 1 of 1958, which placed the authority of the Federal Civil Defense Act of 1950 in the President, Executive Order 10952 transferred from the Office of Civil and Defense Mobilization to the Secretary of Defense the civil defense functions authorized by the Act, with certain exceptions. The President from a legal standpoint retains all final authority for the civil defense program and for defense mobilization.

The authority of the Secretary of Defense is therefore delegated from the President.

Seven specific Civil Defense functions were transferred to the Secretary of Defense. They are as follows:

(1) A fallout shelter program;

(2) A chemical, biological, and radiological warfare defense program;

(3) All steps necessary to warn or alert Federal military and civilian authorities, State officials, and the civilian population;

(4) All functions pertaining to communications including a warning network, reporting on monitoring, instructions to shelters, and communications between authorities;

(5) Emergency assistance to State and local governments in a postattack period, including water, debris, fire, health, traffic, police, and evacuation capabilities;

(6) Protection and emergency operational capability of State and local government agencies in keeping with plans for the continuity of government;

(7) Programs for making financial contributions to the States (including personnel and administrative expenses) for civil defense purposes.

The first of these, the fallout shelter program, is the subject of H. R. 3516.

PROGRAM

The program contemplated by H. R. 3516 has a number of elements which I will delineate as briefly as possible.

--- The cost of the shelter payments to nonprofit institutions proposed by the Bill is estimated at $175 million for the first year of operation.

--- This would provide for the first year an estimated 10 million shelter spaces in public or private non-profit institutions. Over a five-year period, the estimate totals 95 million spaces.

--- Eligible non-profit institutions would include both governmental (state or local) and non-profit private institutions. These include schools, hospitals, welfare institutions and State and local government owned buildings.

The non-profit character of private institutions would be determined generally by the Internal Revenue Service criteria.

--- The reason for selecting only non-profit institutions is because

(1) They are usually large organizations, occupying substantial facilities and with available personnel readily adaptable for emergency leadership and organized efforts in shelters, but with limited access to sources of financing;

(2) Are engaged in activities of a public service nature;

(3) Are well located in relation to homes;

(4) Are occupied in part by school children, invalids, and others for whom society must take a special responsibility;

(5) The school building is often the most substantial community facility;

(6) The building of schools represents the largest share of construction in the United States today, except housing;

(7) Schools are organized institutions with responsible leaders and orderly procedures;

(8) Hospitals provide emergency supplies and a trained cadre, organized for emergency operations.

(9) Dual purpose space capable of daily use is encouraged rather than prohibited. In confining payments to non-profit activities, there is no danger of favoring one competitive position over another due to the accident of being located where shelter is needed.

An official statement of Civil Defense says that on the basis of the foregoing, "there is a logic to discrimination in favor of these institutions."

--- The rate of shelter incentive payments will be set at $2.50 per square foot, or the cost of the shelter construction or modification, whichever is less. At 10 square feet per person, this equals $25.

Typical shelter space is estimated at $40.00 in new construction. In this case, the Federal Government would pay $25 and the institution would pay $15.

If an institution wanted to spend more than $40 in order, for example, to make the shelter blast proof as well as fallout proof, it could spend as much as it wanted but it still would receive only $25 per space.

--- In order to qualify for incentive payments, each shelter must accommodate a minimum of 50 people and must be open for public use in time of emergency.

--- Based on available cost data and estimates of public response, the total cost of the program for shelter development is projected at $2.1 billion. The objective is substantially to meet the national fallout shelter requirements over a five-year period.

--- Larger sums -- which have been referred to in the press and elsewhere -- $5 billion, and $7 billion -- refer to the total Civil Defense program rather than the shelter program itself.

The very much larger sums -- $100 billion, $200 billion, and even more -- refer to a total blast shelter program for the whole United States.

--- For eligible institutions to receive payment, the shelter space must:

(1) Meet shelter standards prescribed by the Office of Civil Defense;

(2) Be located in an area where existing shelter is inadequate in the opinion of local civil defense officials;

(3) Provide shelter space for fifty or more persons in one structure;

(4) Be immediately available for public use as shelter in an emergency in accordance with the plan or direction of the local civil defense organization or local government; and

(5) Not involve peacetime use which would prohibit, restrict or interfere with the immediate use of the area in an emergency as public shelter (e.g., use of the shelter space for heavy or extensive storage would be prohibited).

There is a procedure for allocation of funds based upon population and immediate need for shelter in the localities.

The foregoing is one part of the shelter program which is covered by the bill.

The total shelter program has three other elements, only one of which is involved in the bill.

The first of these is the shelter survey financed primarily from Fiscal Year 1962 funds. Funds were also appropriated in 1963 for this program. This survey is taking inventory of all fallout shelter space for 50 or more people in existing structures throughout the United States. The shelter area is then licensed, marked and stocked with austere food and other necessary supplies. The Defense Department estimates that it will locate spaces for over 100 million people, of which over 70 million can be brought into use (that is, licensed, marked and provisioned). This program is going on at the present time. The department expects that there will be a continuing survey program to locate an additional 4 million spaces per year for a total of 20 million spaces by the end of Fiscal Year 1968.

The second part (new section 206), which is relatively small insofar as spaces are concerned but which is important as far as example and leadership is concerned, relates to shelter spaces to be built into Federal -- civil and military -- structures. The estimated total number of spaces from this source through Fiscal Year 1968 is estimated at 5 million spaces. This provision would require the incorporation of shelter in all Federal buildings, new or existing, owned or occupied by the Government unless an exemption from the requirement were granted in accordance with regulations prescribed by the President. Reasons for the exemption could include design and construction characteristics of the building, lack of need in the locality, excessive cost, etc.

The third element is those shelters which would be provided by private means. Here the department estimates an average of 10 million unsubsidized shelter spaces per year for a 5-year total of 50 million shelter spaces.

These rough estimates add up to 240 million shelter spaces by the end of Fiscal Year 1968.

In summary, the 240 million spaces are made up of 95 million spaces from the bill's shelter development program; up to one million per year or 5 million in Federal civil and military construction; 90 million as a result of the survey, and 50 million unsubsidized privately constructed shelters.

BROADNESS OF BILL

That is the program contemplated by H. R. 3516. The sources of information as to what the program contemplates are various statements made by the Executive Branch, including the letter which transmitted the bill to the Congress and statements before Committees by the Assistant Secretary of Defense for Civil Defense, Mr. Pittman.

The bill does not, of course, set out any of these details. It is very broad in its language and would leave a great deal of the prosecution of the program up to administrative decision.

CONSIDERATIONS

Lengthy as the foregoing has been, it appears necessary to possess this background information in order that the matters to be brought from here on can be considered in the context of what is planned by the Department of Defense. Any other course would cause this matter to be discussed in a vacuum.

Approval of this bill or any variation of it would, very probably, constitute the taking of an irretraceable step. This bill is, in truth, only a first step and the decision made and the course followed at this time may well be a virtually irreversible one.

For this reason, it is submitted, more care and more deliberation is necessary than would be the case with respect to legislation of the kind

usually dealt with by this Committee. All of the matters to be mentioned are brought up as considerations which should be thought about and discussed. None of the information is of a classified nature and all of it has been taken from public sources.

It is my belief that all or most of what I will call "facts" are substantially correct, and this because only well-informed, well-intentioned, and responsible people are quoted or paraphrased.

It should be stated that, at the outset for the most part, the matters raised and the arguments presented are against the fallout shelter program. The reason for this will become evident I think.

This program, of course, is a fallout shelter program and not a blast shelter program. Analysis of the whole problem, however, has caused me to believe that any attempt to concentrate on the single aspect of shelter directed only to fallout could well lead to erroneous conclusions -- for blast and fallout in a nuclear attack are inextricably entwined. Indeed, this same entwinement extends to all of the multitudinous dangers involved in a nuclear attack. For what does one gain to survive the radiation effects of a nuclear attack only to be suffocated in a shelter by a fire storm which has consumed the oxygen necessary for life?

FEASIBILITY

The first matter to be discussed is the feasibility of constructing shelters which will provide a true measure of protection.

There are those who say that the fallout shelter poses for the creative engineer problems which are well-nigh insuperable. Standards of engineering are required for shelters as they are for autos, trains, and airplanes. But can such standards be extrapolated from virtually non-existent data and operational experience? Only two atomic bombs, and no thermonuclear bombs, have been used in war. Many people feel that at the present time shelter engineering must be based on sheer imagination and without the certainty that is the normal result of reasonably established standards.

Even the strongest proponent of civil defense and of the fallout shelter program, Herman Kahn, agrees with this when he says:

> "In considering civil defense against nuclear weapons, we enter a field which is, in a critical sense, new: there is no adequate experience; no one has fought and survived more than a comparatively small and one-sided nuclear war. If, therefore, we wish to understand what the existence of these weapons of unprecedented destructiveness may mean for us, we have no choice but to rely on theoretical analysis and extrapolation, while trying to relate our theories as closely as possible to the known facts and lessons of the real past."

Even a Research Chief for the Deputy Assistant Secretary for Civil Defense has said:

> "We know far less than we would like to about fallout from a major weapon. The statement that we need shelters, and we need good shelters, is about the best information we have."

Dr. Alexander Langsdorf, Jr., a physicist at the Argonne Laboratories, in an interview with a Chicago newspaperman said that if the Russians know that we had an adequate fallout protection, they would explode the bomb in the air rather than on the surface. Dr. Langsdorf said:

> "From an airburst you get a massive firestorm which might set all Chicago on fire. Concrete fallout shelters would turn into ovens, cooking the people inside. If they don't burn, they would probably suffocate, because all the oxygen would be consumed."

In this connection, we do have some non-nuclear experience on which to draw.

James R. Newman, who was chief intelligence officer for the U. S. Embassy in London during World War II, has described what happened during the Hamburg firestorm. On July 24, 1943, the British dropped the equivalent of 2,400 tons of conventional explosives on that city. There were,

admittedly, circumstances favoring combustion--dry weather, some wooden houses. The first bombs were especially powerful and put the water mains out of commission. In succeeding days the Allies dropped tens of thousands of small fire bombs, as well as more blockbusters--8,000 tons in all. "We got a phenomenon," Newman reported, "that man has never seen before, except perhaps in pre-history. Fires joined together in a radius of three miles. Hot gasses rose, while surrounding cool air was pulled in and acted as a bellow. Seventy thousand of Hamburg's 100,000 street trees splintered to earth. Two hundred and fifty thousand dwelling units, out of 556,000, were completely destroyed. The fire lasted for seven days. Temperatures flared to 1,400 and 1,800 degrees so that the bricks themselves actually burned. Thousands and thousands of people were in shelters at the time; all but a negligible fraction died anyway. Bodies were still being dug up six months later, most of them completely unmarked by fire. They had died of suffocation and carbon monoxide--70,000 in all. In Dresden, where another firestorm occurred, 300,000 * were killed in a single night, and only 2,000 tons of explosives were dropped."

It has also been suggested that the Russians could combine nuclear attack with other forms of destruction. For instance, if they dropped chemical or biological weapons a few hours or a few days after the bombs, the pumps drawing in air for the shelters would simultaneously draw in

*The writer has been unable to confirm the accuracy of this figure.

poison. Admittedly, chemical and biological weapons are far from perfected, but they are almost certain to become manageable in the near future.

So far as I have been able to determine, the current fallout shelter program does not contemplate protection against chemical or biological agents, even though in 1961, Major General Marshall Stubbs, as Chief Chemical Officer, stated:

> "All available information points with certainty to the fact that the Sino-Soviet bloc is ahead of the United States and our allies in both offensive and defensive chemical and biological research and development, and have a stronger capability to wage a chemical and biological attack."

A previous Chief Chemical Officer, Major General William M. Creasy, said seven years ago that as he saw it, the use of nuclear weapons didn't make sense economically for an aggressor, because such weapons "cause physical destruction not only to the human element, but also to the buildings and machines those humans operate." He said, "Poisoning, sickness, radioactivity, starvation, and mental derangement can cause death or dehabilitation among humans, but do not destroy material things."

Hanson Baldwin, military editor of the New York Times, says in an article which appeared in the March 31, 1962 issue of the Saturday Evening

Post that:

> "Shelters are a gamble and a poor one at that. If a rocket aimed at Philadelphia hits nearby Haverford, you have had it if you live in Haverford--shelter or not. If there's a strong westerly wind over Los Angeles on D-day, Pasadena may well be out of luck from both fire and fallout. Nobody--but nobody--can make allowances for all of the variables and fill in all the unknowns in the equation: Size and number of weapons used; accuracy of the weapons; targets selected; height of burst; the winds and weather; sunshine or mist; the intentions of the enemy, and so on."

In the same article, Mr. Baldwin said:

> "A 20,000-ton bomb wiped out Hiroshima and killed 70,000 people. Today, some sixteen years later, the Russians claim to have a 100,000,000-ton weapon. And a 100-megaton weapon is by no means the ultimate. There's an open-end progression possible and no perceptible limit to the power that can be produced by a thermonuclear explosion.
>
> "The 100-megaton weapon already has invalidated the'

civil defense concepts of yesterday. Its explosion and the resulting fire storm would probably ignite anything flammable out to thirty-five to sixty miles from the center and incinerate or asphyxiate the occupants of shelters. Thus, the concept of shelters against radioactivity in great cities or in their surrounding suburbs has little technical validity--unless you assume, as so many supporters of the shelter program do--that cities will not be targets.

"All of this means that civil defense planners are confronted with the nearly insoluble problem of technical obsolescence. The programs of yesterday are of limited usefulness today; today's shelters may not be worth the cost of tearing them down tomorrow. In an age when the offensive has such a great advantage over the defensive, the enemy can easily nullify all except the most elaborate and expensive attempts to provide passive protection."

Many people have pointed out that protection against fallout is one and only one of the many hazards that man must surmount if he is to survive a nuclear attack. Again quoting Mr. Baldwin:

"The terrific blast of a nuclear explosion, the intense

> heat and the burst of radioactivity released at the instant of the detonation, as well as the later fallout, make it almost impossible to provide shelters against big bombs near ground zero. The ground burst of a 100-megaton weapon would scoop out a crater 350 feet deep and a mile in diameter--in solid granite. And if nice, solidly built shelters hundreds of feet deep saved one from blast, the searing heat and exhaustion of oxygen caused by the fire storm would trap most of the survivors within a radius of twenty to sixty miles."

Assuming that one has not been killed or incapacitated by reason of blast, radiation, or suffocation, one still must face the question of survival afterwards. Dr. John N. Wolfe, Chief, Environmental Sciences Branch of the Biology and Medicine Division of the Atomic Energy Commission, epitomizes the whole question in a speech. Dr. Wolfe said:

> "Fallout shelters in many areas seem only a means of delaying death and represent only a part of a survival plan. With an environment so completely modified, the question is, where does man go after his sojourn in shelters? What does he do upon emergence?"

What Dr. Wolfe means is that the survivor emerges from his shelter only to find that communications and distribution systems are damaged or

destroyed. If there is food still undestroyed it may well be contaminated as will be the water supply. It is at least possible that the land which he must stand on is dangerously radioactive. Under these circumstances, he may survive but if so it will be through pure luck.

This picture is presented, again by Mr. Hanson Baldwin, who says:

> "The survivor may emerge into an area uninhabitable for days, weeks, months, years, or a lifetime. His immediate need is to know where to go to reach an area relatively uncontaminated by radioactivity. His ancillary need is transportation to get there. If he has to walk, he may receive a lethal dose of radioactivity before he reaches safety. To surmount all these hazards presupposes nation-wide reporting, communications, transportation and control systems relatively intact--and people to operate them.
>
> "And it presupposes, if the survivor reaches a safe area, the existence of prestocked foods, pure water, uncontaminated farmlands, and a muscle instead of a gasoline economy."

In a recent statement, Dr. James Van Allen and his associates at the University of Iowa stated that:

"It is extremely dangerous to give the impression to the public that the building of fallout shelters will enable the average citizen to survive a nuclear war."

The New York Herald Tribune for May 31, 1962, contained a summary of four articles by a group of Boston physicians that appeared in the New England Journal of Medicine. The articles deal with the probable effects of a twenty-eight-megaton attack on the Boston area. The doctors estimate that there would be 2,250,000 deaths from heat and blast alone. In the metropolitan Boston area there are 6,560 physicians of which perhaps 900 would survive. This would leave a ratio of one physician to every 2,300 injured. Probably only 10,000 hospital beds of the 65,000 in Massachusetts would survive. This would present the impossible task of putting over 2,000,000 sick and wounded human beings in 10,000 already occupied beds in hospitals without water, electricity, sewage disposal, refrigeration, transportation or communication.

The foregoing presents a dismal and even horrifying picture of what nuclear war can mean. And does not this disturbing question present itself: In whose hands might rest the success or failure of a fallout shelter program? Is it not possible that this might rest entirely in the hands of the enemy, the Soviet Union? Could not the Soviet Union wait until we have completed the currently proposed fallout shelter program and then so conduct an attack as to render it useless? Those who claim to know say that this could be

done in a fashion which I have already referred to -- by exploding their nuclear weapons at high altitudes so as to cause widespread fires and no fallout whatsoever. In other words, we would commit ourselves to a particular position only to find that that position is overcome by events in the form of a simple tactical manuever.

NONPROFIT INSTITUTIONS

As I have indicated, the current program contemplates that incentive payments would be made only to non-profit institutions.

Let us look at this matter for a moment. There are those who feel that our schools, colleges, hospitals, and welfare institutions are going to be unwilling or unable to make the contributions contemplated by the fallout shelter program. As I understand it, the Civil Defense organization believes that many institutions will not require more than the $25 per space that the Federal Government would pay. On the other hand, if, as they say, the average cost of shelter space is $40, then for every space costing below $25, there must be another space costing as much as $55. And for those higher cost spaces, a $30 payment per space would be required.

For the current fiscal year the Federal Government appropriated $49.5 million for grants and loans to schools to aid the teaching of science, mathematics, and foreign languages; $72.9 million for grants for vocational rehabilitation programs; $220 million for grants and loans for hospital

construction; and $75 million for the Housing for the Elderly Fund. This totals over $417 million. The fallout shelter program would in Fiscal Year 1964, in effect, ask that a substantial portion of this amount be returned in the form of contributions toward the fallout shelter program.

If these institutions can't afford these services without Federal help, is it reasonable to suppose that they can or would want to find the money for fallout shelters?

Incidentally, schools would play a prominent part in the shelter program, but children are in schools only one-eighth of the hours of the year.

Allied to this question of contributions from sources which concededly have limited access to funds is the question of public acceptance of such a program -- and those who would make the decisions as to whether any amount would be contributed are part of the public.

The apathy toward fallout protection which settled over the country since the relaxation of the Berlin crisis is well known. At the peak of the crisis there was a great surge toward building home shelters. This quickly died down and, as we have seen in the press, those who were engaged in the manufacture of shelters have been left with unsaleable stocks. The Cuban crisis and its aftermath reflects very much the same picture.

When a newspaper columnist encouraged one of her inquiring readers to build a fallout shelter, she received thousands of letters in response to

her suggestion. The letters were 9 to 1 in opposition to her advice. This was, of course, not a public opinion poll taken under controlled conditions but it might be revealing as to how the public appears to feel. If the preponderance of feeling is as great as it would appear to be against fallout shelters, can it reasonably be expected that the local officials responsible for health, education, and welfare institutions will be willing to raise and expend the funds necessary to make the program an effective one?

With respect to discrimination, many situations can be imagined which would envisage shelter for one group and no shelter for another group in exactly similar circumstances, one having funds available and the other not. This same kind of discrimination could be one of mere geography. An area with a high water table would not have basements, and the provision of fallout shelters would impose a great financial burden. On the other hand, in another area the situation would be ideal for fallout shelters and the cost would be minimal. These examples could be multiplied indefinitely. Is it reasonable to assume that this will not cause disquiet and result in the greatest possible pressure to expand the program so as to have Federal funds available for fallout shelters for all the people regardless of their situation?

Perhaps the answer is not obvious but I will say that it presents an interesting area for conjecture.

BUSINESS AND MUNICIPAL INTEREST

Not wholly unrelated to the questions just brought up is the question of pressures from the business community to engage in an ever expanding program of shelters.

James Reston of the New York Times pointed out on November 12, 1961:

> "No group of citizens is showing more solicitude for the future well-being of the nation (than the builders of fallout shelters). The Iron and Steel Institute, the cement manufacturers, and the makers of brick and other clay products are all vying with one another to make a better shelter, and the National Lumber Manufacturers Association has produced a dandy little number (made) out of wood, which, as everybody knows, doesn't burn."

Hanson Baldwin has touched generally on this subject. He says:

> "There remain, moreover, the economic and social costs of a shelter program. The costs start modestly by today's standards; about $770,000,000 (for all Federal civil defense) for the next (1963) fiscal year, according to present plans. But they expand with the years, enormously and unendingly. Government fallout shelters,

> if built for every person, will ultimately price out at a roughly calculated $40 per capita to at least $7,200,000,000--probably twice that. Food, water, accessories--all perishable and requiring periodic replacement--will add more billions. The possibilities of political chicanery and graft are legion. Even at best such a program could be a gigantic boondoggle."

To be completely realistic about the pressures which might be exerted to expand this program far beyond its present confines, one merely needs to ask himself: What city, town, or village doesn't have a requirement, real or imaginary, for a municipal structure for which a large injection of Federal funds would be most desirable. How many cities but would like to build a downtown garage under the Common which could serve the double function of garage and fallout shelter. Even the mention of this consideration presents each member of Congress with his own Pandora's box.

FEDERAL RESPONSIBILITY

There are, of course, responsible people who feel that the totality of this program is a Federal responsibility, and that it should not be dependent upon contributions from any segment of the public.

On November 9, 1961, the Columbia Broadcasting System presented an hour long show on Civil Defense. Appearing on this show were Mr. Holifield,

then
/ Chairman of the Joint Committee on Atomic Energy and Chairman of a Subcommittee of the House Committee on Government Operations which has for years been holding hearings on Civil Defense, and Secretary of Defense McNamara. In response to a question raised by CBS reporter Howard K. Smith as to who was to do what about what, Secretary McNamara said:

> "Certainly the federal government, the state, and local governments all have parts to play, but most importantly, it's the responsibility of each individual to prepare himself and his family for that (thermonuclear) strike . . . ."

Mr. Holifield said:

> "The American people are not, individually, going to be able to tackle this any more than they can tackle modern war as an individual, or as a family, or as a city, or as a state. . . This is a challenge for survival to the nation. The response has to be a national response, and the only way we can do that is to have the federal government take the responsibility for an integrated and coordinated method of shelters and other survival."

Mr. Holifield added that: "It means funding it out of the general tax fund."

In referring to Mr. McNamara's position as to the responsibility of each individual to prepare himself and his family for a thermonuclear strike, reporter Howard K. Smith cited a letter in Newsweek which said:

> "The last command given in a battle to a defeated Army is, 'every man for himself.' We are issuing that command first."

From testimony given to the Committee during this year's Posture briefing by Mr. McNamara, it would appear that the foregoing statement by him does not reflect his present attitude. He now is clearly in favor of the program represented by H. R. 3516.

PSYCHOLOGICAL EFFECTS

As I think has already become evident, the considerations which underlie a shelter program are both numerous and complex. Indeed, the building of the shelters themselves seems to present the least of the problems.

High on the list of matters which must be considered is the psychological effect on the American people of a shelter program. Americans traditionally have not been ones to seek a hole to hide in. Our history is a long and admirable one of facing our problems, confronting our enemies, and dealing with them in the fashion of our forefathers at Lexington and Concord.

This is not to say that we haven't had enough sense to duck our heads in a trench or foxhole as in World Wars I and II but this constituted merely

part of a total plan of action which allowed us to remain alive in order to fight when circumstances indicated a reasonable chance of winning. In those cases, the psychology was one of temporary self interest and in no way represented a burrowing for the sake of mere preservation.

The question is raised and offered for your consideration as to whether a fallout shelter program can be looked at in this same fashion.

Although delivered in another context, I consider it pertinent to quote from a lecture delivered by George Kennan over the British Broadcasting system. Mr. Kennan said:

> "What sort of a life is it to which these devotees of the weapons race would see us condemned? The technological realities of this competition are constantly changing from month to month and from year to year. Are we to flee like haunted creatures from one defensive device to another, each more costly and humiliating than the one before, cowering underground one day, breaking up our cities the next, attempting to surround ourselves with elaborate electronic shields on the third, concerned only to prolong the length of our lives while sacrificing all the values for which it might be worth while to live at all? If I thought that this was the best

> the future held for us, I should be tempted to join those who say 'Let us divest ourselves of this weapon altogether; let us stake our safety on God's grace and our own good consciences and on that measure of common sense and humanity which even our adversaries possess; but then let us at least walk like men, with our heads up, so long as we are permitted to walk at all.'"

Along this same line, Thomas E. Murray, a member of the Atomic Energy Commission for seven years, said there is something sad "about the sight of a great nation falling back upon sheer survival as its all-consuming purpose in history. Such a morbid preoccupation reflects a bankruptcy of lucid, political thought."

Here, it is submitted, a question is presented which must engage deep thought before a decision is arrived at. The question of the feasibility of fallout shelters has already been dealt with -- the question as to whether they would be effective even if built. Here is raised the question as to whether, if the fallout shelter program did provide reasonable protection, we should embark on such a course.

Senator Mansfield not long ago stated that he would certainly not wish to discourage sober efforts in the field of Civil Defense by communities or individuals. He indicated, however, that we must avoid developing a national

obsession with burrowing in the ground. He implied that such burrowing might exclude what may be more fruitful ways of dealing with international difficulties.

He concluded his remarks with this statement, and I quote:

> "A cover of earth overhead may preserve the strain of human life. But it will scarcely preserve a way of life. . . . We owe coming generations a richer heritage than a landscape of fallout shelters."

Dr. Lester Grinspoon, a Senior Research Psychiatrist at the Massachusetts Mental Health Center and an Assistant in Psychiatry in the Harvard Medical School, refers to the psychological effect on children of the construction of shelters in the schools:

> "While the construction and existence of fallout shelters and drilling in their use may well have a psychologically pernicious effect on people of all ages, we may expect shelters, particularly school shelters, to have an especially harmful effect on children. First, they are likely to initiate the young in a very direct way into the anxieties of the cold war. The anxiety and the controversy stirred up in their community and among their teachers by the construction of school shelters and the

institution of shelter drills will undoubtedly be communicated to the children. Efforts to solve the community's problem of who, in addition to school children, are to use the shelters will bring home to everyone the terrible choices that the shelter's existence implies.

"Two of the central issues with which children struggle inwardly are their fear of separation from their parents and death. A shelter and shelter drills will make a child believe that his worst fears are coming true. We may make clearer the burden of anxiety that a child must bear in a community where a school shelter is built through the following analogy. A father tells his child that there may be some savage beasts at large in the community and that he must therefore build a fence around the yard. He thereupon builds a high fence tipped with broken glass and barbed wire. Does this make the child feel more secure? The answer is no. For the child the fence is an ever-present, anxiety-provoking reminder of the hostile and insecure nature of the world he lives in.

"Once the school has built a fallout shelter, many children, especially the older ones, are likely to

demand of their parents that they do the same. If, however, the parents are unable to or refuse to for one reason or another, the child may be left with the feeling that he is defenseless during the time he is not in school."

President Eisenhower has said:

"If I was in the finest shelter in the world, all alone, with all my family somewhere else, I just think I'd walk out. I don't want to live in that kind of a world."

"ACCEPTIBILITY" OF NUCLEAR WAR"

I would now like to deal with what has been referred to as the "acceptibility" of nuclear war. There will be those who will say that --- This is wandering rather far afield from the central theme of fallout shelters but the acceptibility of nuclear war as such reflects an attitude which may have a very important bearing indeed on the idea underlying the shelter program.

General LeMay has said:

"No one can win a modern war. Even the victor loses."

When Val Peterson was Civil Defense Director he told Congress, "We believe in shelters but we don't want to mislead people. There is no easy answer to this thing except to have peace . . . There is no such thing as a nation being prepared for nuclear war."

A writer in the Pittsburgh Post-Gazette dealing with the same general theme said:

> "Nuclear war, once almost universally presented as an unspeakable and unthinkable horror, is being gradually transformed by the folklore of power politics into a bearable, although unpleasant, experience ... people are being psychologically conditioned to believe that nuclear war would not be as catastrophic as it has heretofore been pictured ...."

In a review of Herman Kahn's book entitled On Thermonuclear War, the reviewer stated that "Unless thermonuclear war can be re-established in the official mind as something which is possible both to fight and to survive, it is unlikely that there will be a thermonuclear war."

I might say parenthetically that Mr. Kahn has stated that a reasonable shelter program "might involve a gradual buildup from about $1 billion annually to somewhere in the neighborhood of under $5 billion annually." And he states that "an expenditure of that order would buy a valuable degree of protection against most forms of nuclear attack that might occur."

Stuart Chase, a writer and thinker on the subject of thermonuclear war, has said that the central problem of our age, and one not admitted by some of our scientist-writers (Kahn, Teller), is that nuclear weapons have made

war obsolete. These people and their school, he says, pride themselves on hard boiled realism. Mr. Chase says, and I quote:

> "It seems to me that they are, on the contrary, the wildest romantics, the modern Don Quixotes, armed with digital computers in place of rusty lances . . ."

Is it not possible that one of the reasons that thermonuclear war has been avoided to date is because neither side believed that it was possible to survive such a war. How realistic and how dangerous is the acceptance of the fact that thermonuclear war is in essence no more catastrophic than conventional wars? Reference has been made to some of the things which must be faced in a thermonuclear war and it seems quite obvious that thermonuclear war is not just "more of the same" but is what the scientists call a "quantum jump" in warfare and would represent catastrophe such as has never been seen by the world before.

As President Eisenhower put it, "There is now no alternative to peace."

If we visualize our energies both physical and psychological as having some limit, that is, if each man and each nation is endowed with only so much ability to press forward in a given number of directions, might we not wonder whether a concentration on civil defense would have the effect of diluting or diminishing our efforts in other directions -- and other directions which might be more profitable to the end which is sought?

Or, in analogy and to use money in place of human energy -- every dollar spent on the shelter program means, for example, one less dollar for weapons. This is a simple concept and one which is readily understood.

But let us look at a little more complex aspect of this finiteness of energy. Is it not similarly possible that for every ounce of concentration and effort which we direct toward the shelter program, there is one less ounce in our energy supply to direct toward the achievement of a peaceful world as, for example, through the disarmament which this country has been so assiduously seeking?

Our form of Government is based upon the people. The people express their will in many ways, including the election of its leaders. Pressure for change comes from the people and ultimately finds its reflection in the laws passed by the Congress and in the acts of the Executive Branch. I ask whether it is not realistic to wonder whether any diminishing of this pressure by reason of a sense of security brought on by the fallout shelter program might to an equal extent lessen the pressure of the people for a peaceful solution of our international problems.

If we feel to some extent safe, do we not to an equal extent lessen our efforts to remove the source of the danger?

Some scholars say that civil defense and disarmament are what is known in social psychology as "dissonant" -- that is, civil defense presents

a view of the international situation in which there has been a failure of negotiations and conflice is imminent, while on the other hand disarmament paints a picture of the world which fosters negotiation and war can be considered avoidable.

General Douglas MacArthur in a speech to the Congress of the Republic of the Philippines, in Manila, July 5, 1961, said:

> "Many will tell you with mockery and ridicule that the abolition of war can be only a dream--that it is but the vague imagining of a visionary. But we must go on or we will go under. And the great criticism that can be made is that the world lacks a plan that will enable us to go on.
>
> "We are in a new era ... We must have sufficient imagination and courage to translate the universal wish for peace--which is rapidly becoming a universal necessity--into actuality."

On another occasion General MacArthur said:

> "War has become a Frankenstein to destroy both sides ... No longer does it possess the chance of the winner of the duel -- it contains, rather, the germs of double suicide."

An echo of this view was that voiced by General Hap Arnold when he said:

> "One nation can not defeat another nation today. That concept died with Hiroshima."

One other thought allied to the acceptibility of nuclear war is the effect such a war would have on our democratic institutions. In this connection, it is interesting to note that Herman Kahn, the man who has been called "the most vocal and most influential spokesman for civil defense," and Erich Fromm, one of the most articulate opponents of fallout shelters, are in very substantial agreement as to one apparently inevitable effect of a thermonuclear war.

Mr. Kahn, whose every argument favors civil defense, says:

> "Even if we won the war, it is conceivable that we might no longer live in a democracy."

Mr. Fromm in stronger terms states:

> "That even if it (civil defense) were optimally successful in war, it would not prevent the replacement of our democratic system by a totalitarian one."

Could the summary of this whole thought perhaps be this: Is there more danger involved in failing to work effectively to prevent war than in

failing to prepare against the possibility that war will take place? Or as Walter Lippmann put it:

> "There is no protection against nuclear war except to prevent it."

EFFECT ON USSR AND ALLIES

Much has been written and said about the effect that a shelter program would have on the Soviet Union on the one hand and on our allies on the other. It is a matter, therefore, that warrants some discussion.

Would the institution of a shelter program be to the Soviet Union a provocative act on the part of the United States? Would it have a deleterious effect on our relationship with the Soviet Union? These are questions which have been widely discussed -- discussions which I might say have arrived at two diametrically opposed conclusions.

Those who claim that the shelter program would be provocative state that the program could be very easily interpreted by the Soviet Union as meaning that we intended to engage in a first, or pre-emptive, strike and were readying our people for the inevitable attack which would then be directed against the United States.

General Carl Spaatz, former Air Force Chief of Staff, has said:

> "It will be particularly important for us to know from

now on whether the Soviet Union is building civilian shelters for its own people. This can be one of the most significant indicators of its intentions, if and when it gets ready to launch a surprise attack."

On the other hand, it might with equal validity be said that the existence of a fallout shelter program might persuade the Russians that we are thinking realistically about the possibility of nuclear war and that they, in consequence, might be much less apt to push us into a position where the use of nuclear weapons appeared to be the only alternative to humiliation.

If we were intending to engage in a vast national program of blast shelters involving astronomical amounts of money and effort, the argument that the program would be provocative might have some validity. However, since the kind of program which is being talked about could not insure the survival of the country's people, it probably would be construed by the Soviet Union as only a normal protective device. As a matter of fact, it is reasonable to believe that the kind of program we are discussing would not have any really substantial effect on either the likelihood of war or our relationships with the Soviet Union.

As an interesting sidelight to this question, I might mention that one writer on the subject refers to the fact, while disagreeing with the conclusions drawn, that Civil Defense is viewed by many people as a sign of war

hysteria and militarims or as an admission that war is inevitable. Those with this attitude feel that Civil Defense will bring about the very thing feared, that is, war.

This writer refers to Civil Defense as an example of the mechanism known as the "self-fulfilling prophesy." In this context, civil defense is interpreted as a hostile act taken because of suspicion that the other side -- the enemy -- is hostile. The enemy, observing this behavior, responds by acting hostile itself thus confirming the original estimate made by the first side which then acts more hostile than before. This involves a spiral of hostility which leads to war.

Whatever the effect of Civil Defense on our enemies, and I think the kind of program we are talking about will probably have little or no effect at all, the effect on our allies might just conceivably be somewhat different.

Is it unreasonable to wonder whether our allies who are not engaged in or, so far as I know, even contemplating a shelter program might think that the United States was taking an action which could be interpreted as a kind of withdrawal from active participation and aggressive willingness to engage in a war if such became necessary? Might not the reaction of our allies be that our fallout shelter program tended to make them more "expendable?"

SHELTERS IN USSR

It is perhaps symptomatic of the whole concept of a shelter program or no shelter program that there is an absolute split of authority, if, indeed, it can be called "authority", as to whether the USSR has a shelter program or not.

One person, a Rand Corporation employee named Leon Goure, a Russian-born naturalized United States citizen, told a congressional Committee last year when testifying about Soviet Civil Defense that his views were based on work for the Rand Corporation which he had done over the past three years on the subject of shelters in the USSR.

Mr. Goure says that since 1955, the Soviet Union has instituted a series of compulsory training courses for the population including men from 16 to 60 years old and women 16 to 55 years old.

The Ninth Report by the Committee on Government Operations dated September 21, 1961, quotes Mr. Goure as saying, "... for the past ten years or so the Soviet Union has been engaged in an extensive and expanding civil defense program." The Committee report goes on to say that "this is Mr. Goure's conclusion, and the testimony, together with the Committee's 1959 findings, amply supports it."

Later on the Committee report states that "the size of the Soviet civil defense organization has not been publicly stated, although Soviet

Premier Khrushchev has boasted to foreign visitors that there are 22 million fully trained persons serving in civil defense and that the organization is being expanded. This figure would represent about 10 per cent of the Soviet population and would approach the basic Soviet requirement for a ratio of 1 civil defense unit of approximately 48 persons to every 500 inhabitants."

As this Committee report continues to deal with the subject of Civil Defense in the Soviet Union, a picture is painted of very extensive training of the civilian population and the report states "it is now estimated that between 50 and 100 million Soviet citizens have taken part in formal civil defense training courses...." Mention is also made of the fact that Soviet citizens are instructed in individual means of protection against chemical and bacteriological agents and against inhalation or direct body contact with radioactive matter and that the use of protective clothing, masks, and individual decontamination packets figures heavily in the training program. It is stated that some 30 million masks, of good quality, have been issued to civil defense personnel.

In the area of Soviet shelter programs, the Committee report indicates that this program is also widespread and even describes the various types of shelters, including blast shelters, which have been constructed in the Soviet Union.

On the other hand, Mrs. Khrushchev told some Westerners in Moscow that the Soviet Union was making no effort to build air raid shelters on the

basis that there is no defense in a nuclear war.

Also, the United Press International manager for Russia and dean of American correspondents in Moscow, Henry Shapiro, has written that "no foreigner here has seen any civil defense shelters. The average citizen is unaware of the existence of shelters."

Preston Grover of the Associated Press agreed with Mr. Shapiro's position when he stated that:

> "Attaches from Embassies who have looked round the country for sign of shelters have found nothing. Foreigners live in many of the newest buildings put up in Moscow, and they have no bomb shelters."

In 1961, The New York Times published a report from Moscow by Harrison Salisbury which stated:

> "About 12,000 miles of travel in the Soviet Union by this correspondent in the last four weeks failed to turn up evidence of a single Soviet bomb shelter..."

Mr. Salisbury went on to say in referring to Mr. Goure's reports for the Rand Corporation that these reports "are largely based upon a study of Soviet civil defense and military literature." and that "they have been vigorously challenged by observers on the scene within the Soviet Union."

Mr. Salisbury agreeing with Mr. Grover of the A.P. said:

> "Diplomats, foreign military attaches, and correspondents who have travelled widely in the Soviet Union report that there is no visible evidence of a widespread shelter program."

It is not clear whether either those who say there is a great deal of civil defense in the Soviet Union or those who say there is none are correct but as indicated previously, this split in opinion is typical of so many expressed views on the shelter program.

ADMINISTRATION POSITION

On May 25, 1961, President Kennedy delivered his views to the Congress in the following words:

> "We will deter an enemy from making a nuclear attack," said Mr. Kennedy, "only if our retaliatory power is so strong and so invulnerable that he knows he would be destroyed by our response. If we should ever lack it, civil defense would not be an adequate substitute."

The President went on to say that this deterrence assumes that the enemy is "rational". What the President said and meant is that if the enemy is rational enough and sane enough to make an objective assessment of what he would lose in a retaliatory strike by our weapons, he will then not

attack us in the first place.

The President stressed the point, however, that unfortunately "the history of this planet, and particularly the history of the Twentieth Century, is sufficient to remind us of the possibilities of an irrational attack, a miscalculation, an accidental war, or a war of escalation in which the stakes by each side gradually increase to the point of maximum danger which cannot be either foreseen or deterred."

This is why, the President said, "We need an insurance for the civilian population . . . insurance we trust will never be needed -- but insurance which we could never forgive ourselves for foregoing in the event of catastrophe."

In essence, the Administration's position is a simple one: There exists an undefinable but undeniable possibility now and for the foreseeable future that we might be subjected to a nuclear attack. Therefore, it would be prudent to take some precautionary measures.

The President's position is well summarized, I think, in a speech by Theodore Sorensen, Special Counsel to the President, in Fresno, California last year. Mr. Sorensen said:

> "The President has no illusions about that (the fallout shelter) program. He does not believe it will either prevent or provoke an enemy attack. It neither strengthens nor

> weakens our national will or our deterrent force. It will not save everyone from fallout nor anyone from blast. It is not a substitute for efforts to achieve peace. But, neither are they a substitute for shelters. For in the history of this country it has never been regarded as cowardly for community effort to save our families from Indians, floods, fire or fallout. It is a fact of life that we live in an age of nuclear weapons, and however dim the probable usefulness of such shelters may appear to some, no President responsible for the lives of 173 million people could fail to take out this minimum insurance against disaster."

In the President's State of the Union Message this year, he referred to the need for an "improved civil defense." And in the 1964 Budget Message, he listed

> "A civil defense fallout shelter program to improve the chances that a large portion of our population would survive a possible nuclear attack."

as one of the Budget proposals to be emphasized.

The case of those in opposition is almost equally simple: A nuclear attack, on almost any scale, with or without civil defense would be such an

indescribable disaster that it would be foolish to adopt a policy which might on the one hand mildly mitigate the disaster while the price of such a policy is to make the disaster itself more likely to occur.

Perhaps a not unreasonable summary of a somewhat pessimistic view of the worth and efficacy of a shelter program is that contained in one of the sources studied in the preparation of this statement. That article ended in this fashion:

> "Our conclusion is that if there is a general nuclear war, few will come out of it whole. Survival will be largely accidental, whether or not Congress gives $692.3 million to the President this year (FY 1962) for the fallout shelter program. This sorry conclusion applies to our civilization, as well as to individuals. The story of Hiroshima will not be repeated. Its destruction and its rehabilitation occurred when one nation only had a very few, very small atomic--not thermonuclear--weapons. Longrange missiles, space satellites, 55-megaton bombs had not been invented.
>
> "Some will feel more secure if they have a shelter to which they can repair; and the imponderables being what they are, who can say dogmatically that shelters could not possibly increase one's chances of survival.

So, to the dissatisfied who want to do something constructive and concrete, one can only respond, 'If you dig, dig deep.' And be aware, as you dig, that this peril is unlike any man has experienced, that its effects are unpredictable, that you are digging in the dark. You cannot know whether fallout shelters make war less likely or more; you cannot know whether 'the enemy' will use nuclear weapons or not; you cannot know where you will be 15 minutes after a nuclear strike is launched; you cannot know whether an attack will create some radioactive fallout, none, or devastating fire instead; you cannot know what areas will be hit, or with what size bombs; you cannot know which way the wind will be blowing; you cannot know where, at the moment of greatest danger, your children will be or whether you can or should try to reach them. And if circumstances permit your survival, you cannot know what you will then have to do, or whether you will then want to do it."

CONCLUSION

Mr. Chairman:

I want to repeat what I said at the beginning of the statement that for the most part the matters included in it tend to be arguments against the Shelter Program. You will recall that the reason for this is that you and the Congress have had an affirmative proposal made to you -- as represented in H. R. 3516 -- to embark upon a fallout shelter program. The statement, then, is concededly slanted against the program.

It is entirely probable that many of the objections which have been raised can be persuasively answered. And, indeed, if this turns out to be so, then the statement will have fulfilled its purpose. If a dismal picture has been painted, it has not been for the mere purpose of painting such a picture; the real purpose is to raise questions and present considerations which, it is hoped, has helped to illuminate the serious problems which the Congress and the country face in the area of nuclear war and the defense of the civilian public.

It has occurred to me that an interesting, if somewhat collateral, thought might be that protest against the fallout shelter program will prove to be a salutatory thing. Indeed, one who favors the program or one who has formed no judgment with respect to it might be entirely consistent in protesting it on the grounds that any danger of halting the program is

heavily outweighed by the gain, through such protest, of impressing upon the public the extent of the danger we are faced with.

Or to put it another way, it might be preferable to see the Administration's program pass the Congress only after a great debate which served to awaken the public to the dangers of the arms race and all of the other very great dangers which I have mentioned, than to see the program smothered in the Congress without debate, or even pass the Congress without the kind of debate which has aroused public awareness of all of the implications involved.

To end on a somewhat more optimistic note, may I give what I consider one of the most valid arguments in favor of shelters: Dr. Willard F. Libby, former AEC Commissioner, stated that he preferred the opportunity to change his mind when THE TIME came. Dr. Libby also had a telling argument when he raised the question as to whether we -- the Congress and the people -- can make a decision -- whether to shelter or not to shelter -- for our children.

May I also suggest that it would be philosophically unsound and morally reprehensible for one to do nothing to improve a situation simply because one can not do an absolutely perfect and complete job. Perhaps there is such a thing as a "small" nuclear war such as, for example, an accidental one which would be quickly halted but which, without fallout shelters, could result in the unnecessary loss of many lives.

There can be little doubt that fallout shelters will keep alive some people, somewhere, for some length of time. What people, where, and for how long, presents problems with so many variables that no one can provide a satisfactory answer.

Throughout this statement I have attempted to suggest considerations, raise questions, and generally provoke thought on the subject of a fallout shelter program. I hope that the effort in this regard has established the fact that sound basic thinking is more of a requirement than technical knowledge; where studied and reasoned thought are more important than military or scientific competence. Perhaps this is epitomized by a statement of the Council of the Federation of American Scientists, and I quote:

> "..... judgment on a national shelter program can not be made on purely scientific grounds."

This statement, I believe, emphasizes the great responsibility which is placed upon this Committee.

There can be no doubt that an attentive ear should be turned to the experts: the military, the scientists, and the civilian leaders in the Department of Defense. But may I suggest that this be done with the full realization that while war and the prospects of war are normally thought of as matters within their almost exclusive province, final judgment in the area of civil defense must be yours; for the defense of our civilian population, although clearly embodying matters of a technical and military

nature, involve even more important considerations of basic human philosophy, individual morality, individual and mass psychology, and international relations.

In these areas, then, Mr. Chairman, I would like to suggest that while the technicians must be listened to with respect, it should be with the understanding that other voices must dominate the council tables. I am referring to your voice and the voice of the Congress.